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ISTS Newsletter

Iowa Academy of Science

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5-2011

# ISTS, May 2011

Iowa Academy of Science

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# ISTS

*Enjoy a rejuvenating summer!! Live, laugh, learn.*

Nadine Weirather, Editor

May 15, 2011

## Notes and News

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## Iowa Academy of Science Mission

- \* Promote scientific research and dissemination
- \* Improve instruction in the sciences
- \* Promote public understanding of science
- \* Recognize excellence in science and science teaching

## ISTS Leadership

Your Leadership team can be found at <http://ists.pls.uni.edu/officers.html>.

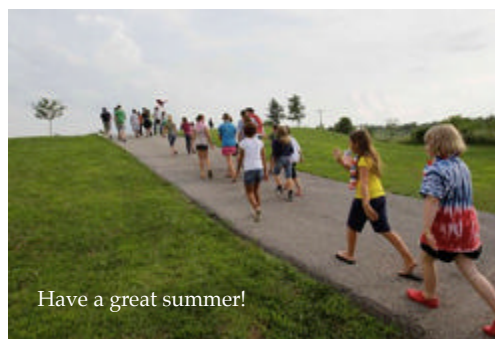
We are always looking for good people. Send a line to [kathy.megivern@gmail.com](mailto:kathy.megivern@gmail.com) if you would like to be more involved.

## Avoid the Summertime Slide

Here are some suggestions from About.com that seem appropriate for us all during the summer months. The website has more detail for each of these entries.

1. Get away from it all.
2. Try something new.
3. Do something just for yourself.
4. Reflect on last year's teaching experiences.
5. Be informed about your profession.
6. Maintain your expertise.

7. Assess your classroom procedures.
8. Choose a few lessons to improve.
9. Inspire yourself.
10. Take a colleague to lunch.



Have a great summer!



Perhaps 4-H is in your summer plans? Or travel? Or reading? Or...



HAVE FUN!!!!

Make plans this summer to attend the Fall Conference at ISU on October 17 & 18, 2011. Want to present??? Deadline is June 15.



## Message from ISTS Fall Conference Chair: Kathy Megivern

Hello, Science Teachers!

I imagine everyone's anxiously awaiting that "whew!" moment when the end-of-year frenzy is finally behind us. And then we reflect and even look ahead to that next school year. What do we look forward to repeating? What new ideas will we try? What new ideas will we seek?

With all this in mind, we set this year's deadline for presentation proposals at June 15. Hopefully this will give you some time to reflect -- what can you share at the ISTS Fall Conference? What can your colleagues share? What can you share together? Get those proposals in and encourage your colleagues to do the same! The conference benefits with input from all of you!

Remember, this year's conference will be at the Scheman Center in Ames, October 17-18. Watch for details on the ISTS website at <http://ists.pls.uni.edu/>

Have a wonderful, restful summer!

Kathy Megivern  
ISTS 2011 Fall Conference Chair



## Message from Chair-elect: De Anna Tiben

*Greetings to you, IAS-ISTS Membership!*

Thank you for giving me the privilege to serve you as the 2011 Chair-elect of the Science Teaching Section of IAS. I look forward to a year of both tradition and change, of progress, and continued science education advancements for both teachers and students.

There are so many opportunities you have as members of IAS! Have you invited a colleague to join you in membership of the largest section of the Iowa Academy? My goal as your Chair-elect is to spread the word and reach all corners of Iowa with the opportunities available for all Iowa teachers through the Academy.

Have you considered school membership in the Iowa Junior Academy of Science (IJAS)? The 2010-11 school year was my first year to experience the advantages for my students and myself. Becoming an IJAS school was the best revitalization I could do for my classroom! The objective of the Junior Academy is to promote the study of and participation in science by elementary and secondary students and teachers. IJAS Programs are developed to:

1. promote an understanding of the importance of science and scientific research to meet many essential needs of society,
2. encourage students with interest and aptitude in science to participate in science research,
3. promote formal and informal discussions of science and scientific research by student groups, including teachers and members of the senior Academy, as appropriate, and,
4. help students explore career opportunities in science.



I encourage you to visit the IAS webpage and explore more about IJAS. <http://www.iacad.org/>

As I stated, there are so many opportunities available for teachers and for students! It's just finding the time to 1.) be aware of all of them and 2.) apply or sign-up for them. One of my goals is to help you by creating an IAS-ISTS resource page for all k-12 educators. Sort of the "one-stop-shopping" list of opportunities. This will be in addition to our informative on-line newsletter, ISTS home page, and IJAS wiki page. Look for information on this resource page to be available at the 2011 IAS-ISTS Fall Conference.

Our 2011 Conference Chair, Kathy Megivern, has planned a very informative, enjoyable, and educational Fall ISTS Conference. I guarantee you'll come away with many, many new ideas for re-working your current lessons and for creating new lesson activities. Veteran teachers, new teachers, and even pre-service teachers will gain informative, relevant, and appropriate science lessons and ideas. Are you thinking about presenting at this year's Conference? I hope so! Be sure to register as a presenter sooner than later. Presentation proposals may be entered on the ISTS webpage <http://www.iacad.org/>

Thank you again for the opportunity to serve you as Chair-elect. Please feel free to send me your thoughts and ideas to further better our organization!!

I hope to see you October 17 and 18 in Ames!

Sincerely,

De Anna Tiben





Aileen Mahood-Sullivan



David D. Langtimm



Terri L. Weise

## 2011 Excellence in Science Teaching Awards

The Iowa Academy of Science Excellence in Science Teaching Awards were founded in 1969. Outstanding teachers of all grade levels and areas of science are recognized for their work and innovations in science education. ESTA Winners demonstrate, through knowledge and practice, the characteristics of an exemplary educator. Awardees receive a plaque and a \$200 award.

### 2011 ESTA Awardees

- David D. Langtimm-Elementary Science  
Riverdale Heights Elementary School, Bettendorf
- Justin R. Johnson-Middle/Junior High Science  
Central Middle School, Muscatine
- Aileen Mahood Sullivan-Physical Science  
Ames High School, Ames

- Teri L. Wiese-Life Science  
North High School, Davenport
- Jesse L. Wilcox-General/Multiple Science  
Valley Southwoods High School, West Des Moines
- Kathy D. Hobson-Earth, Space, Environmental Science  
Atlantic High School, Atlantic

Johanna Kruckeburg, Chair of the Recognition and Awards Committee awarded the plaques and monetary prizes.  
Photos above taken by Craig Johnson.



## Poster Competitions at the Spring Meeting

Two poster competitions were held at the ISTS spring meeting at Wartburg College in Waverly this past April. The senior division boasted 48 Iowa research projects from all areas of science.



The Iowa Junior Academy of Science (IJAS) hosted the junior division of the poster contest. There was a dramatic increase in the number of young researchers entering the contest this year.

The 2012 American Junior Academy of Science delegates are Aparna Ajarapu, Laura Graveline and Lupe MacIntosh - all from Ames High School. The alternates are Germine Alfonse from Iowa Math & Science Academy and Paolo Adajar from Central Lee High School.

Photos of poster competitions taken by Marcy Seavey.

## Cost-Free Professional Development for New Science Teachers

Take advantage of the New Science Teacher Academy program for second- and third-year science teachers. Participants have access to resource-filled, professional development and mentoring to boost teacher confidence, improve classroom excellence, and promote better content knowledge. Those selected are rewarded with approximately \$6,500 in quality PD over the course of a year. Fellows in the Academy become instant members of NSTA and enjoy all the benefits of membership. They are able to access online learning experiences including web seminars that are facilitated by nationally known experts in science education. Along with complimentary registration to NSTA's National Conference, the Fellows enjoy free air travel, lodging, and meals. Meeting other Fellows from across the nation, attending conference sessions, a high-quality Institute or Research Conference, socials, and hands-on practical workshops are a part of this terrific program. Mentoring from more experienced teachers in their discipline and grade band provides a forum for discussion and assistance during the challenging first years.

"The program reinforced many teaching practices, however, participating in the inquiry made a huge improvement in the implementation of new ideas. I am grateful for the experience, and I am thankful for the NSTA."—2010 Fellow in the Academy

It's an opportunity not to miss. Visit [www.nsta.org/academy](http://www.nsta.org/academy) to learn more and to download an application. The deadline is July 1, 2011.

from NSTA Express, May 9, 2011

## NRC Report Free to Your Classroom

Each year, the Division on Earth & Life Studies of the National Research Council produces about 60 expert consensus reports (reports produced by a committee of experts convened by the National Academies) in such areas as agriculture, water and natural resource management, biosafety, disaster response, climate change energy, and environmental health. For many of its reports, the division produces four-page "briefs" that make it easy to find out about the report's main findings and conclusions. For teachers, these briefs can serve as a valuable tool in explaining complicated scientific topics to students.

The Report in Brief series offers the complete set of these briefs for the years 2002–2010. The briefs can be removed and reproduced to better serve your curriculum and classroom needs. An index in the back guides readers to the topics covered. The sets are being offered free through July 2011. <http://dels.nas.edu/global/Report-in-Brief-Series>

from NSTA Reports, April 11, 2011

## GreenSchools! Green Team Training.

September 30 - October 1, 2011, Springbrook Educational Center, Guthrie Center <http://pltgreenschools.org/>

In April of 2009, four Iowa schools were chosen to pilot the new to GreenSchools! initiative sponsored by Project Learning Tree. A team of teachers and students attended training to guide them through using environmental investigations to improve their school grounds. Since then all four schools have improved their school site, engaged in service learning, and have included their communities in their projects.

PLT's GreenSchools! program, provides a blueprint for educators, students, environmental and health advocates, school board members, parents and



interested community members to teach, learn, and engage together in creating a more green and healthy learning environment at their school. It combines environmental education, service learning, and leadership opportunities for students to help turn their school into a model green school.

### Who should be on the Green Team?

Two teachers, one administrator (or a third teacher), one environmental educator, and 3 students

### Only 5 teams will be selected.

We will cover the cost of travel, meals, lodging, and substitute teachers for each of the 5 schools. Each team will also receive \$300 in equipment (light meter, temperature monitoring equipment, watt meter) to take back to their schools.

If you are interested in attending or have any questions, please email:

[Holly.Schulte@dnr.iowa.gov](mailto:Holly.Schulte@dnr.iowa.gov)

### Ongoing Support

Schools who attend will be eligible for a \$1000 grant to implement a project that will benefit their local aquatic resource and watershed.

*GreenWorks!* is the service-learning, community action program of PLT that partners PLT educators, students, and communities in environmental neighborhood improvement projects. *GreenWorks!* blends service activities with the academic curriculum and addresses real community needs as students "learn by doing." Since 1992, PLT has distributed nearly \$1 million to fund 1,000 environmental projects in communities across the country.

### Credit Option

We are seeking teacher recertification/graduate EDEX credit with the cost of credit being the teacher's responsibility.



## Sunwise Opportunities

With spring right around the corner, families will start spending more time outdoors. The sun is the primary source of excessive ultraviolet radiation, which is the cause of most skin cancers. The good news is: skin cancer is also easy to prevent, and we have excellent and free resources we're excited to share with you. To increase awareness of the importance of sun safety, we invite you to encourage students and educators in your school to take advantage of the many fun and educational resources, social media tools, contests, and activities offered by the U.S. Environmental Protection Agency's SunWise Program.

SunWise is a national environmental and health education program that teaches children and their caregivers how to be safe in the sun through the use of classroom-, school-, and community-based components. Over 26,800 schools and 4,700 community partners have joined the program since its launch in May 2000. This spring, we are especially excited about the wealth of activities and resources available from SunWise. We invite you to visit [www.epa.gov/sunwise](http://www.epa.gov/sunwise), where you can find free resources for educators on sun safety, including the award-winning SunWise Tool Kit containing activities for 5-13 year old children.



### Win a \$2,500 Gift Card for Your School with the "Make My LabWoRx" Video Contest

In honor of the flasks, beakers, and pipettes that help bring science to life for your students, Science WoRx invites you to celebrate National Lab Day by entering the 2011 "Make My LabWoRx" challenge.

This year's challenge is a Facebook video contest with a big prize on the line: The winning teacher's school will receive a \$2,500 gift certificate for lab equipment! Entering is easy:

1. Record a two- to five-minute video of yourself performing and explaining a cool science demonstration.
2. Share your demonstration with the Science WoRx community of science educators by 12 noon ET on Friday, June 24th, 2011.
3. Get your friends, family and colleagues to "like" your video by 12 noon ET on Friday, June 24th, 2011. The video with the most "likes" wins! (The earlier you submit your video, the more time you'll have to generate "likes".)

To enter the Science WoRx "Make My LabWoRx" challenge, become a fan of the Science WoRx online community forum on Facebook, where science teachers come together to network with peers, access tools and resources, and exchange ideas ([www.facebook.com/scienceworx](http://www.facebook.com/scienceworx)). Once there, click on "Make My LabWoRx" on the left panel menu bar to review the eligibility criteria and instructions for how to enter.



## FREE Wildlife Conservation DVD

*from National Sports Shooting Foundation*

A resource for educators and students about how once-endangered species—wild turkey, Rocky Mountain elk, pronghorn antelope, white-tailed deer and others—have been brought back to abundance through wildlife management programs.

There are three age-targeted videos that can supplement environmental science, biology or current-events curriculums for students in grades 4-12. Teacher guides and activity masters are included.

Teachers may preview the videos online and download the supplemental materials.

Explains role of wildlife managers, hunting, license fees and equipment excise taxes in the wildlife conservation model.

Get your free DVDs at <http://nssf.org/requestForms/ConservationDVD.cfm>

### View Online:

- [Wildlife for Tomorrow](#) Grades 4-7
- [Unendangered Species](#) Grades 7-12
- [What They Say About Hunting](#) Grades 7-12





## T1-Nspire Workshop

Hurry!! Three TI workshops for teachers who are looking for professional development opportunities will be held at the Des Moines Central Campus on June 22-24. Deadline is May 31. Other important information is:

- Registration fee (\$350) includes a Nspire CX or Nspire CX CAS – these are touch-pad, color units!
- Get 6 registrations for the price of 5!
- Math teachers who bring a Science teacher to the “Getting Started with TI-Nspire – Connecting Science with Mathematics” workshop will receive a \$50 discount!
- Pre-Service Teachers can register for only \$125!
- Graduate credit available! For details see [http://education.ti.com/educationportal/sites/US/sectionHome/pd\\_credit.html](http://education.ti.com/educationportal/sites/US/sectionHome/pd_credit.html).

All information is found at [education.ti.com/go/t3summer2011](http://education.ti.com/go/t3summer2011).

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## Experiences in Inquiry

### **An IMPACT Workshop**

1 cr. hr. 870:133g

A two-day workshop for elementary school teachers and administrators in AEA 1 (not limited to AEA 1, however lodging is not provided), that focuses on the process of inquiry in science using temperature as the context. During this workshop you will learn how to gather evidence to form a weather prediction, complete a pilot science investigation about surface temperature and land uses and practice using technology to collect, analyze and communicate your results - in ways that can be implemented in your own classrooms.

Applications will be taken until the course is full. Space is limited.

Dates/Times: June 28-29 Daily + a report

Location: MFL-Mar Mac School

Tuition/Fees: Participants will receive a stipend, and graduate credit is available.

Enrollment: For application information please visit: [http://www.uni.edu/ietti/impact/about\\_impact/](http://www.uni.edu/ietti/impact/about_impact/)

## **IMPACTing Achievement with Collaborations and Technology**

4 cr. hrs. 870:133g

Advance your math and science instruction through this year-long professional development program for *middle school* teachers. IMPACT follows the Iowa Professional Development Model with a 2 week Summer Institute and ongoing school year support. Math and science teachers and scientists will be brought together through the GLOBE and STORM programs and learn to integrate educational technology into classrooms. UNI graduate credit or AEA reaccreditation credits are available.

Applications accepted until the course is full.

Dates/Times: July 17-29 Daily + academic year sessions (via ICN and Adobe WebConnect)

Tuition/Fees: Participants are paid for time and implementation.

Workshop is free, housing/meals provided. Credit available.

Enrollment: For application information please visit: [http://www.uni.edu/ietti/impact/about\\_impact/](http://www.uni.edu/ietti/impact/about_impact/)

Anyone who has questions about either of these workshops can contact me at [seavey@uni.edu](mailto:seavey@uni.edu).

## NEW STEM INITIATIVE BRINGS OPPORTUNITIES FOR STUDENTS

NASA is now accepting applications from students who will be in the 9th through 12th grade during the 2011-2012 academic year to be considered for the Interdisciplinary National Science Program Incorporating Research Education Experience (INSPIRE) Program.

INSPIRE is designed to encourage students to pursue careers in science, technology, engineering and math, or STEM. The centerpiece of INSPIRE is an Online Learning Community (OLC) which provides students opportunities to interact with peers, NASA engineers and scientists through grade level educational activities, discussion boards and live chats. Students selected for the OLC also have the option to be considered for unique grade-appropriate experiences that will occur during the summer of 2012 at NASA facilities and participating universities. These summer experience provide students with a hands-on opportunity to investigate education and careers in STEM disciplines.

Applications are being accepted until June 30, 2011. Selections will be announced in September.

For more information about INSPIRE, please visit us at: <http://www.nasa.gov/education/INSPIRE> <<http://www.nasa.gov/education/INSPIRE>>

To apply visit: <https://inspire.okstate.edu> <<https://inspire.okstate.edu>>

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## NASA Websites

Two award-winning websites for kids have joined forces to further inspire a new generation of explorers.

NASA's [science.nasa.gov/kids](http://science.nasa.gov/kids) and [spaceplace.nasa.gov](http://spaceplace.nasa.gov) have combined to provide several new Web features with interactive graphic design and easy, versatile navigation. The new site includes the extensive and rich science and technology content of the 'old' Space Place with over 50 NASA science missions enriched with content from [science.nasa.gov/kids](http://science.nasa.gov/kids). These sites offer the best of NASA material for elementary school students.

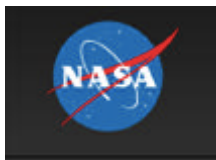
The site includes over 300 separate modules available in English and Spanish. Modules are sorted into menus for Space, Earth, Sun, Solar System, People and Technology, and Parents and Teachers. Information mirrors the missions of the NASA's Science Mission Directorate, as well as the agency's commitment to education and public engagement.

Visitors can filter the menus on subject or type of activity (game, hands-on project, or exploration) and use the search field to produce customized menus. All pages are printer friendly.

The site is available at <http://science.nasa.gov/kids> or <http://spaceplace.nasa.gov>.

**Check out our great sites for kids:**

<http://climate.nasa.gov/kids>  
<http://scijinks.gov>  
<http://spaceplace.nasa.gov>



## Reconnecting Children with Nature - Growing Up WILD

This workshop leads you out the door and provides hands on activities and resource materials to help you lead your own nature explorations. *Growing Up WILD* activities use age appropriate practices

and concepts to build on children's sense of wonder and invites them to explore nature and the world around them. Specially written for children 3-7, activities include sections to address many learning areas: math, science, language, literacy, health living, play, and creativity.

This workshop has been approved for 4 clock hours of DHS continuing education credit.

The *Growing Up WILD* activities have been correlated to national standards for early childhood education - NAEYC Criteria for Curriculum, Head Start Child Outcomes Framework and the NAAEE Early Childhood Environmental Education Guidelines for Excellence. Additional correlations have been drafted to Iowa Early Childhood program and curriculum standards.

**June 11, 2011; Dallas County**  
 8:00am - 12:00 pm  
 ISU Extension Office  
 28059 Fairground Road, Adel  
[Register online](#)

**Outdoor Explorations for Early Learners**  
**June 14 & 15, 2011 (7:30 AM - 4:30 PM) (100% attendance is required)**  
**Annett Nature Center**  
**(15565 118th Ave, Indianola)**

This workshop helps early childhood professionals lead children in outdoor experiences. You will be introduced to strategies, skills, and resources (including *Growing Up WILD* and *Environmental Experiences for Early Childhood*) to build upon children's sense of wonder about the world around them through relevant, inquiry-based exploration.

You must register electronically through the [Heartland AEA 11 website](#).  
**Registration deadline: June 6, 2011.**  
 Registration fee: materials and 1 license renewal credit for \$125 or 1 graduate credit from Drake University for \$225.





## Iowa DNR Program

### Teaching Outdoor Skills: Basic Fishing and Archery Workshop

June 13, 2011 (9:00 a.m. – 7:00 p.m.)  
Emerson Hough Chapter of the Izaak Walton League in Newton, 889 Hwy. F-36 W

June 14, 2011 (8:00 a.m. – 4:30 p.m.)  
Berg Middle School gym in Newton, 1900 N. 5th Ave. E

Hands-on sessions acquaint participants with methods used to teach archery and fishing. Participants receive a basic archery instructor packet and the *Fish Iowa!* basic spincasting module.

A limited number of stipends of \$150 are available to teachers from the DNR Aquatic Education Program to help defray expenses of attending the course. To be eligible for the stipend participants must develop an integrated unit lesson plan using the *Fish Iowa!* materials that meets the criteria to receive an "A" in the course.

Registration deadline is **June 6, 2011**. Registration fee: materials and 1 license renewal credit for \$55 or 1 graduate credit from Drake University for \$155. [You must register on-line through Heartland AEA](#). Lodging is on your own; a block of rooms have been reserved at the AmericInn in Newton (641/791-1160), room rates are \$77.00, breakfast is included.



## Earth Science Week 2011 Toolkits Available

Earth Science Week 2011 will be celebrated October 9–15. The American Geological Institute (AGI) is now accepting advance orders for the 2011 Earth Science Week Toolkit, which contains materials that correspond to this year's theme of "Our Ever-Changing Earth." The toolkit will be sent in August, 2011.

The toolkit provides the traditional theme-related activity calendar and classroom activity poster published by AGI. It also features a variety of educational resources from program partners, including National Park Service resources on fossils and geology, a Rite in the Rain mini-notebook, and water experiment materials from the American Chemical Society.

Government agencies such as NASA, the U.S. Geological Survey, and the U.S. Fish and Wildlife Service have all contributed educational materials. Learn about fossils, geological heritage, Earth from space, the New Madrid earthquake, and much more in this year's extensive toolkit, filled with posters, brochures, bookmarks, fact sheets, postcards, and more.

To learn more about this week and to pre-order your 2011 Toolkit, please visit the Earth Science Week site at [www.earthsciweek.org](http://www.earthsciweek.org) or the [AGI Publications page](#). You may also call the AGI Publications department to place your order at 703-379-2480.

from *NSTA Reports*, May 16, 2011



## National Board for Professional Teaching Standards Accepting Applications for Science Standards Committee

The National Board for Professional Teaching Standards (NBPTS) is accepting applications for the committee responsible for reviewing and revising Science Standards in early adolescence and adolescence through young adulthood. Early adolescence refers to teachers of students ages 11–15. Adolescence and young adulthood refers to teachers of students ages 14–18+.

The application is available [online](#) and will be available through May 31, 2011.

Please visit the [NBPTS website](#) for information about the duties and responsibilities of standards committee members.

For assistance or additional information please contact NBPTS at [nominations@nbpts.org](mailto:nominations@nbpts.org).

from *NSTA Reports*, May 16, 2011

# THE MILKY WAY PROJECT

FOLLOW US ON TWITTER  
VISIT THE BLOG  
MILKY WAY TALK

HOME TAKE PART ABOUT TUTORIAL LOG IN GALACTOMETER™



## GALACTOMETER™

The response to the Milky Way Project has been fantastic! Now we've created the Galactometer™! Here you can find the current total image count as well as a graph of the recent daily count of images served up by the project.

Each classification on the site can be made up of many individual drawings. The MWP community has now drawn an incredible

# 1,224,579

objects! These could be bubbles, galaxies, star cluster or others. If you want to be part of this amazing project, [CLICK HERE!](#)

## Milky Way Safari

by Dauna Coulter and Dr. Tony Phillips

Safari, anyone? Citizen scientists are invited to join a hunt through the galaxy. As a volunteer for Zooniverse's Milky Way Project, you'll track down exotic creatures like mysterious gas bubbles, twisted green knots of dust and gas, and the notorious "red fuzzies."

"The project began about four months ago," says astrophysicist Robert Simpson of Oxford University. "Already, more than 18,000 people are scouting the Milky Way for these quarry."

The volunteers have been scrutinizing infrared images of the Milky Way's inner regions gathered by NASA's Spitzer Space Telescope. Spitzer's high resolution in infrared helps it pierce the cloaking haze of interstellar gas and dust, revealing strange and beautiful structures invisible to conventional telescopes. The Milky Way Project is helping astronomers catalogue these intriguing features, map our galaxy, and plan future research.

"Participants use drawing tools to flag the objects," explains Simpson. "So far they've made over a million drawings and classified over 300,000 images."

Scientists are especially interested in bubble-like objects believed to represent areas of active star

formation. "Every bubble signifies hundreds to thousands of young, hot stars. Our volunteers have circled almost 300,000 bubble candidates, and counting," he says.

Humans are better at this than computers. Computer searches turn up only the objects precisely defined in a program, missing the ones that don't fit a specified mold. A computer would, for example, overlook partial bubbles and those that are skewed into unusual shapes.

"People are more flexible. They tend to pick out patterns computers don't pick up and find things that just look interesting. They're less precise, but very complementary to computer searches, making it less likely we'll miss structures that deserve a closer look. And just the sheer numbers of eyes on the prize mean more comprehensive coverage."

Along the way the project scientists distill the volunteers' data to eliminate repetitive finds (such as different people spotting the same bubbles) and other distortions.

The project's main site ([www.milkywayproject.org/](http://www.milkywayproject.org/)) includes links to a blog and a site called Milky Way Talk. Here "hunters" can post comments, chat about images

they've found, tag the ones they consider especially intriguing, vote for their favorite images (see the winners at <http://talk.milkywayproject.org/collections/CMWS00002u>), and more.

Zooniverse invites public participation in science missions both to garner interest in science and to help scientists achieve their goals. More than 400,000 volunteers are involved in their projects at the moment. If you want to help with the Milky Way Project, visit the site, take the tutorial, and ... happy hunting!

You can get a preview some of the bubbles at Spitzer's own web site, [www.spitzer.caltech.edu/](http://www.spitzer.caltech.edu/). Kids will enjoy looking for bubbles in space pictures while playing the Spitzer concentration game at [spaceplace.nasa.gov/en/kids/spitzer/concentration/](http://spaceplace.nasa.gov/en/kids/spitzer/concentration/).

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*